



MAYO CLINIC  
Health Management Resources

# Presenteeism and the Value of Productivity Instruments *NASA*

**December 1, 2005**



# Today's Agenda

- Welcome & Introductions
- Presenteeism and its Role in Population Health Management
  - What is presenteeism?
  - Where does it fit in the big picture?
  - Why should we be concerned about it?
  - How is presenteeism being measured?
  - What can you do to improve presenteeism through your worksite
  - Case Study Examples
- Questions & Answers

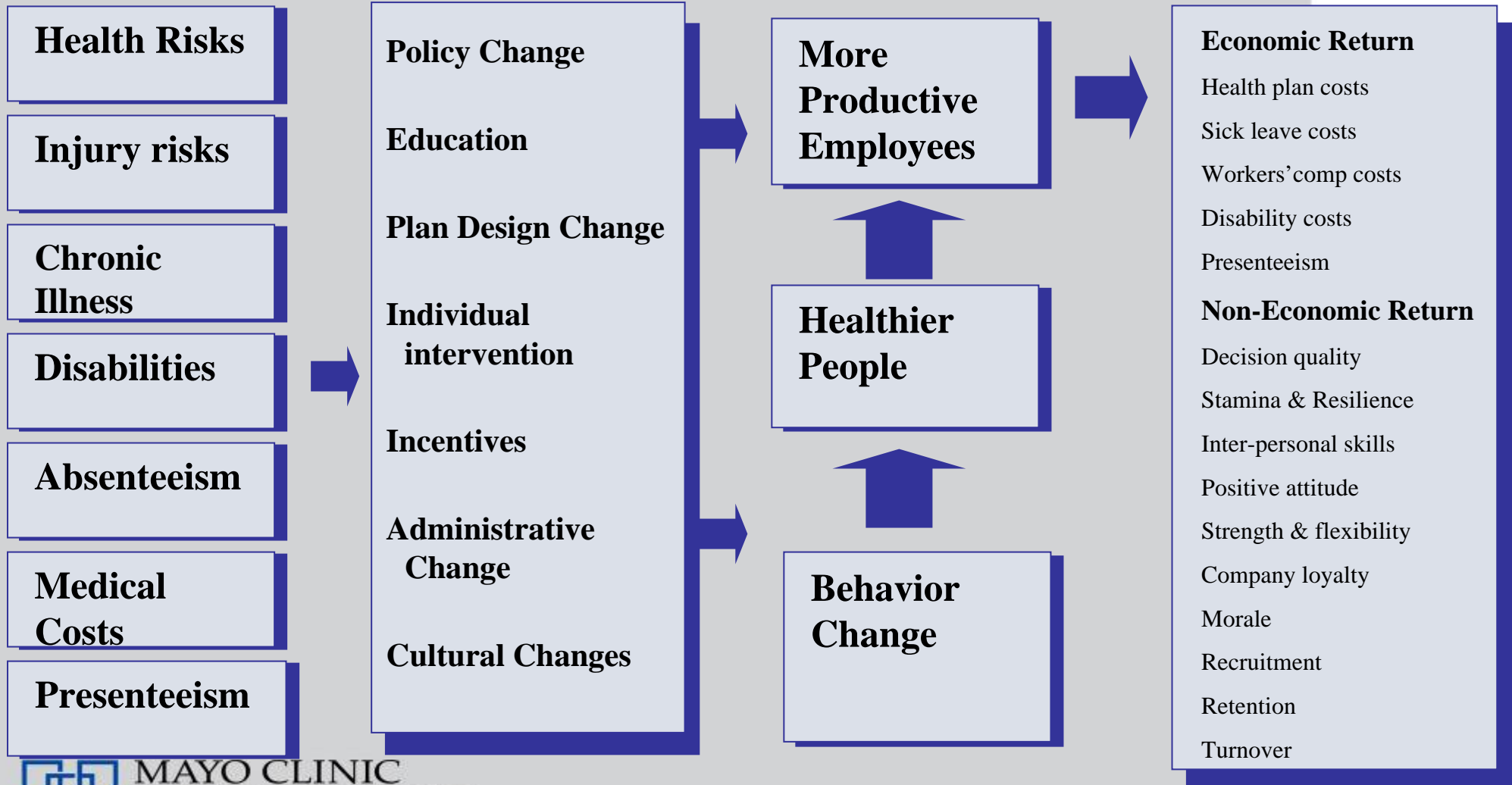
# Presenteeism; Role in Population Health Management

- What is presenteeism?
  - The measurable extent to which health symptoms, conditions and diseases adversely affect the work productivity of individuals who choose to remain at work.
    - Larry Chapman, The Art of Health Promotion 2005

# Where does it fit within the Big Picture?

- Presenteeism is a type of “need” that a program can address.
- Presenteeism shows up as a need that can be measured and targeted through interventions as well as a estimating a total outcome of Population Health Management.
- Presenteeism should be measured in order to be managed and re-measured in order to document improvements associated with interventions and changes in intermediate effects.

# Conceptual Model of H&P Management



# Why should we be concerned about it?

1. Increased aging in the US workforce
2. Greater awareness of problem of productivity loss
3. Improvements in the measurement methodology of presenteeism
4. Increased pharmaceutical industry interest and support
5. Growing competitive pressures in many market sectors
6. Logical out-growth of worksite health promotion programming



# Lost Productivity – “Presenteeism”

Presenteeism - At work, but not feeling well.

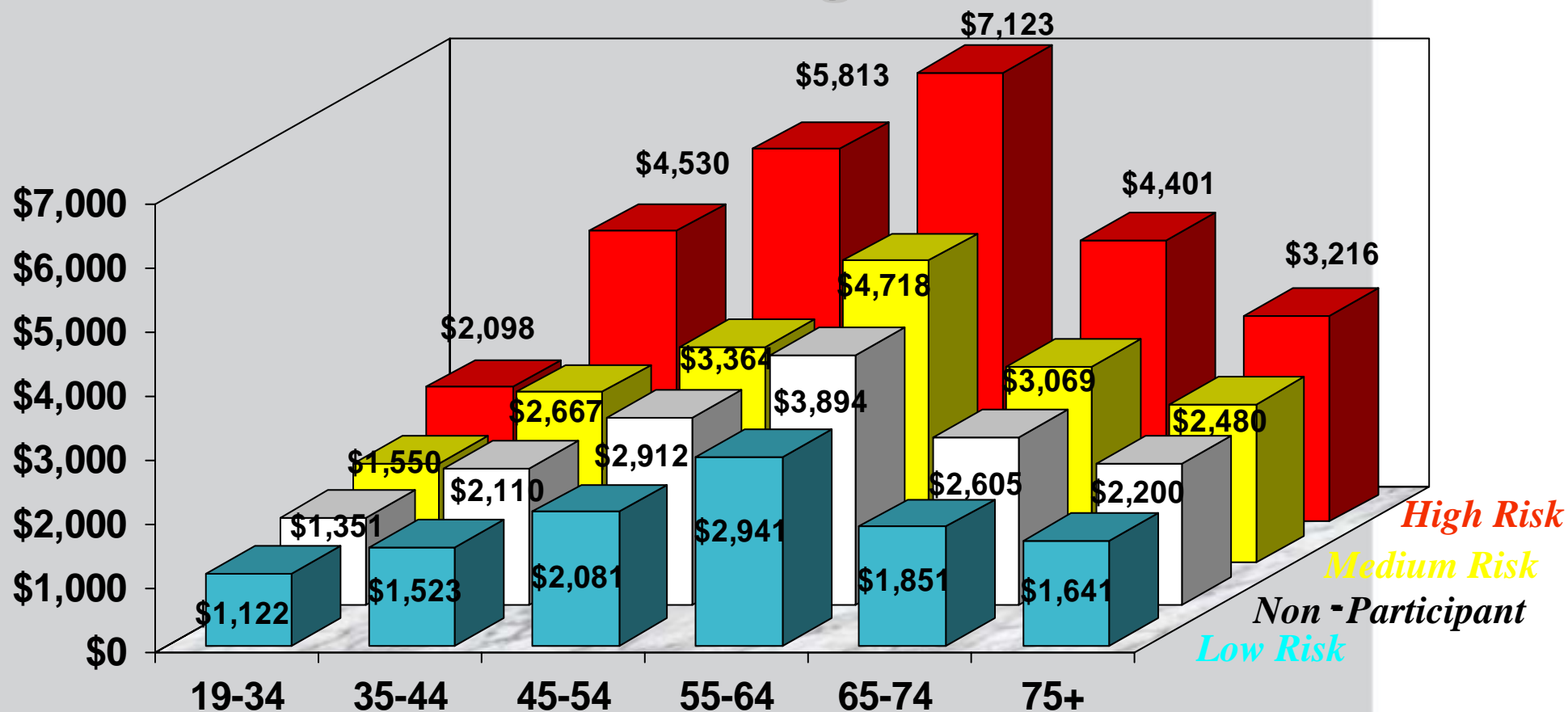
Migraine Headache – Total cost U.S. \$12B, 60-70% lost productivity  
Burton - JOEM – 2004

Allergies –

U.S.\$2.8B lost productivity - 90% Presenteeism,  
10% Absenteeism  
Burton - JOEM – 2004

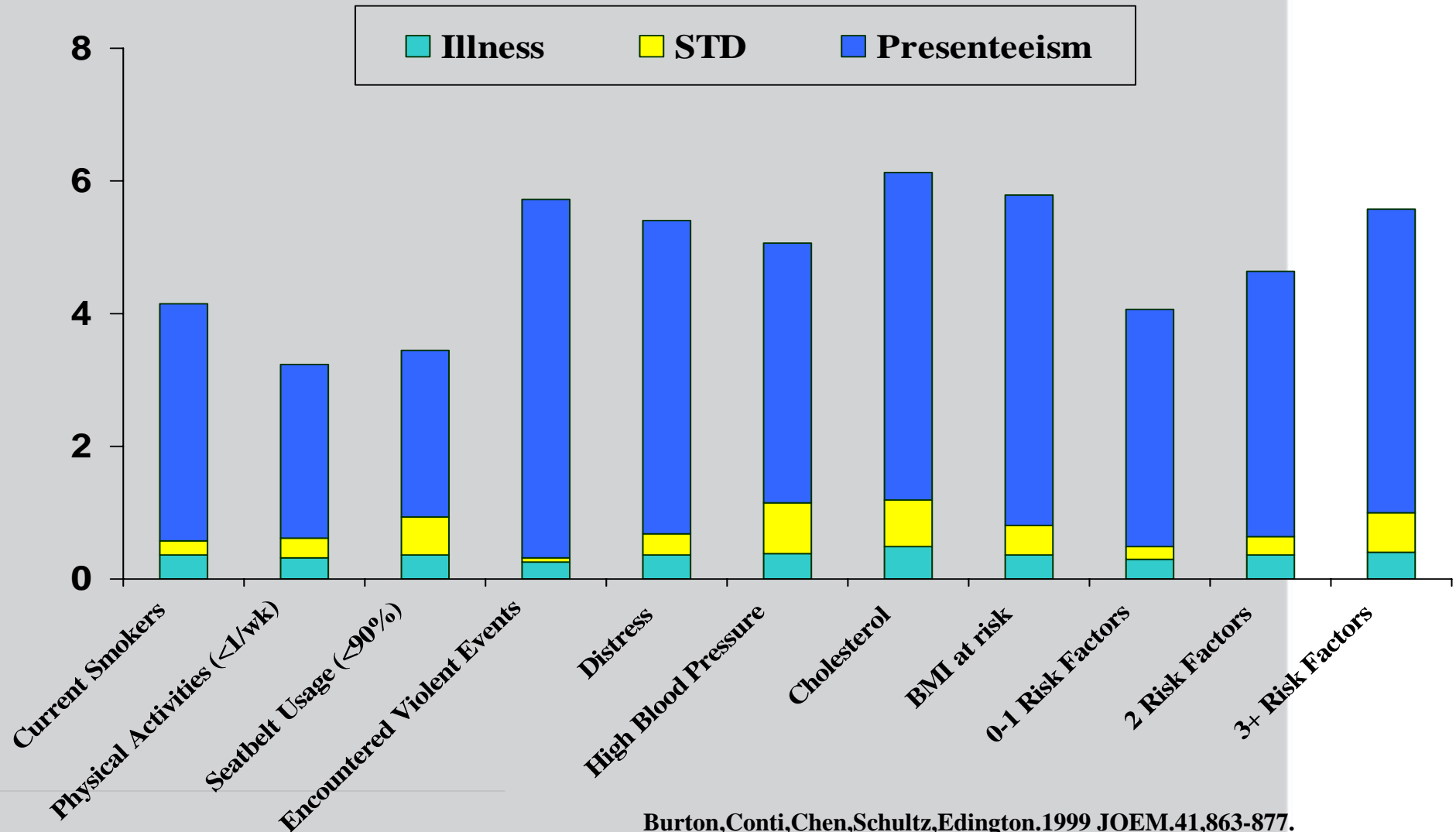
# Costs Associated with Risks

## Medical Paid Amount x Age x Risk



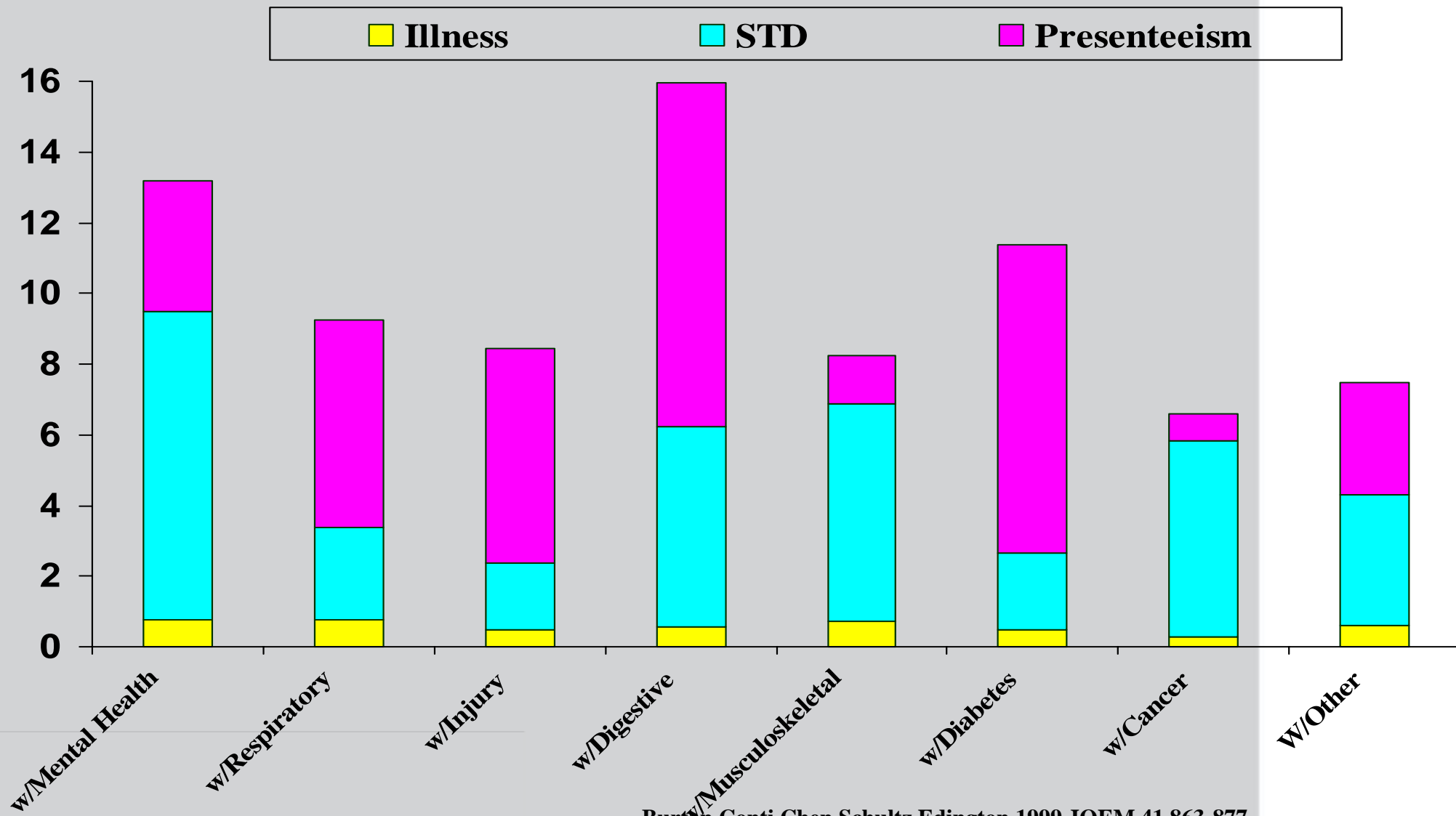


# Health Risks and Behaviors X hours Lost



Burton,Conti,Chen,Schultz,Edington.1999 JOEM.41,863-877.

# Disease States X Hours Lost



# Top Ten Most Costly Health Conditions

Condition	Rank	Total Cost Using Average Presenteeism Estimate per ee/per year	Percent of Total Expenditure due to Presenteeism
Hypertension	1	\$ 392.31	9%
Heart Disease	2	\$ 368.34	0%
Depression	3	\$ 348.04	27%
Arthritis	4	\$ 326.88	35%
Allergies	5	\$ 271.04	55%
Diabetes	6	\$ 256.91	16%
Migraines	7	\$ 213.78	49%
Cancer	8	\$ 144.01	6%
Respiratory infections	9	\$ 133.84	3%
Asthma	10	\$ 99.55	35%

# How is presenteeism being measured?

- There are a large number of work productivity loss instruments that have been reviewed, validated and reported in the research literature.
  - Measuring Employee Productivity by Wendy Lynch and John Reidel
  - American Journal of Health Promotion
  - Journal of Occupational & Environmental Medicine



<b>Survey Instrument</b>	<b>Question Set</b>	<b>Comments</b>
<b>American Productivity Audit (APA)</b>	46 questions	Measures absenteeism & presenteeism
<b>Endicott Work Productivity Scale</b>	25 self-scored questionnaire	Captures absenteeism & presenteeism
<b>Health and Labor Questionnaire (HLQ)</b>	7 presenteeism question plus 3 additional domains	Measures absenteeism & presenteeism, unpaid production and work impediments
<b>Stanford Presenteeism Scale (SPS)</b>	6 questions/ Likert scale	Captures presenteeism
<b>Work Limitations Questionnaire (WLQ)</b>	25 questions	Captures presenteeism
<b>Work Productivity &amp; Activity Impairment Questionnaire (WPAI)</b>	6 questions	Captures absenteeism & presenteeism
<b>Work Productivity Short Inventory (WPSI)</b>	66 questions at maximum	Captures absenteeism and presenteeism & caregiver demands
<b>HPQ</b>	30 questions	Captures absenteeism and presenteeism



# Characteristics of the tools

- Average 15-30 questions
- Average 20 minutes
- Telephone, Paper/Pen, Web-based
- Some ask questions about particular diseases and some are more general but can be used in either type of application
- Recall periods vary from 1 week to 1 year, but most used recall periods closer to the short end of the range
- Nearly all instruments were designed for employed adults
- Instruments vary in terms of reliability and validity and this information can be obtained from their others

# Example – WLQ provides 3 levels

- Individual item responses provide information about limitations performing specific job tasks
- Intermediate level four scale scores ability to address the job's
  - Physical demands
  - Time management demands
  - Mental and interpersonal demands
  - Output demands
- Summary level
  - Productivity loss index which is interpreted as the percentage of output lost/hour due to presenteeism compared to a non-limited employee benchmark group



# Example - HPQ -

Four Dimension are Sickness Absence, Quantity of Work, Quality of Work, Interpersonal Relations at Work

- Survey data can be used to put a monetary value on the indirect cost of lost productivity due to health conditions and the productivity gain that is achieved through treatment.
- The instrument allows employers to measure how much productivity loss is due to specific health conditions and to configure health benefits to meet the needs of employees.
- Pharmaceutical companies may use it to measure the effects of new drugs or treatments on work



## Work Productivity and Activity Impairment Questionnaire (WPAI)

### General Health (GH), Self-Administration Version

The following questions ask about the effect of your health problems on your ability to work and perform regular activities. By **health problems** we mean **any physical or emotional problem or symptom**. *Please fill in the blanks or circle a number, as indicated.*

1. Are you currently employed (working for pay)? \_\_\_\_\_No \_\_\_\_\_Yes

*If NO, check "NO" and skip to question 6.*

*The next questions refer to the past seven days, not including today.*

2. During the past seven days, how many hours did you miss from work because of your health problems? *Include hours you missed on sick days, times you went in late, left early etc., because of your health problems. Do not include time you missed to participate in this study.*

\_\_\_\_\_Hours

3. During the past seven days, how many hours did you miss from work because of any other reason, such as vacation, holidays, time off to participate in this study? \_\_\_\_\_Hours

4. During the past seven days, how many hours did you actually work?

\_\_\_\_\_Hours (If "0", Q.6)

5. During the past seven days, how much did your health problems affect your productivity while you were working? *Think about days you were limited in the amount or kind of work you could do, days you accomplished less than you would like, or days you could not do your work as carefully as usual. If health problems affected your work only a little, choose a low number. Choose a high number if health problems affected your work a great deal.*

Health problems had  
no effect on my work

0 1 2 3 4 5 6 7 8 9 10

Health problems completely  
prevented me from working

6. During the past seven days, how much did your health problems affect your ability to do your regular daily activities, (other than work at a job)? *By regular activities, we mean the usual activities you do, such as work around the house, shopping, child care, exercising, studying, etc. Think about times you were limited in the amount or kind of activities you could do and times you accomplished less than you would like. If health problems affected your activities only a little, choose a low number. Choose a high number if health problems affected your activities a great deal.*

Health problems had  
not prevented me from  
my daily activities

0 1 2 3 4 5 6 7 8 9 10

Health problems completely  
prevented me from doing my daily  
activities

# How to Choose A Tool

## Measuring Employee Productivity: Gold Book

- Guide to self assessment tools
  - How to Choose a Tool
  - Provides description of 7 instruments
  - Productivity Factors Measured
    - Summary Table
    - Instrument specific factors
  - Measurement Tool Development
    - Description of Productivity Measures
    - Rating Productivity Measures on Key Criteria;
      - Reliability, Validity and Respondent Burden
  - Instruments and Instruction for Use
    - Actual Survey Instruments



# What is the role of presenteeism

1. Measurement point in assessing the needs of an employee population
2. Consideration in setting and design programming priorities and interventions
3. Economic rational for supporting initial or expanded programming efforts
4. Evaluation point for assessing health effects and economic return associated with programming
5. Reference point in bring improved integration among the various efforts to improve the health of working population

# What Can You Do To Improve Presenteeism?

1. Place presenteesim questions in HRA
2. Implement a presenteeism model to targeted groups based on costly conditions
3. Use the presenteeism related data from the HRA to plan intervention for sub groups
4. Provide a personalized self care guide to each individual based on they symptoms and chronic conditions identifies in the HRA
5. Include presenteeism issues in health communications activity
6. Include typical presenteeism conditions in medical self-care consumerism training
7. Measure presenteeism pre and post as part of program evaluation

# Case Study – Large Telecommunications Company

- Application WLQ and WPSI to estimate losses of productivity was and described whether and how these losses relate to demographics, perceived health status, or particular medical disorders
  - There was differences in productivity metrics obtained from these instruments and offer reasons for the difference may be related to their design
  - Average work productivity losses were 4.9% as measured by the WLQ and 6.9% as measured by the WPSI
  - Translated into losses of approximately **\$2000** to **\$2800** per employee per year, respectively
  - Total productivity losses usually not associated with demographics of job type, but were associated with perceived health status and the existence of particular medical conditions.

# Case Study –Coors Brewing Company

## **Musculo-skeletal injuries are #1 reason for Short Term Disability at Coors**

- Added custom questions to HRA about musculo-skeletal conditions
- Found out over 50% suffered from musculo-skeletal pain, 13% were getting treatment

## **Implemented a Injury Prevention Program**

1. Created a cross-functional team with Benefits, Environmental Health & Safety Specialists, Wellness and Occupational Health.
2. Referrals came from Occ. Health, Safety and Nurse Case Management
3. Employee met with Wellness Specialist and filled out WPAI
4. Employee met with Physical Therapist and Wellness Specialist for 1-3 months for injury prevention, work hardening and rehabilitation
5. Employee filled WPAI again and re-measured at the end of the program

## **Results illustrated**

1. Improvement in perceived health status
2. Reduction in presenteeism



# Current Projects

- Large Technology Company
  - 80,000 employees
  - Integrate HPQ into HRA
  - Sending HRA and HPQ data to third party for analysis along with medical claims, pharmacy claims, STD for total cost analysis
- Mid-size energy company
  - 6,000 employees
  - Include WLQ into HRA
  - Summary report that links aggregate health risk appraisal data with aggregate presenteeism data with the purpose of:
    - (1) building a business case for health promotion and
    - (2) identifying the risk factors that had the greatest impact on productivity.



# Conclusion

- Presenteesim is an important component of total health and productivity management.
- Aging workforce will increase the importance of presenteeism.
- Presenteeism will gain economic credibility for most employers as the methods and research study results are published and more broadly disseminated.

# Questions